

AMENDMENTS TO THE CLAIMS

1 1. (currently amended) A method of assigning a network address to a host based on
2 authentication for a physical connection between the host and an intermediate device, the
3 method comprising the computer-implemented steps of:
4 receiving, at the intermediate device from a first server that provides authentication and
5 authorization, in response to a request for authentication for the physical
6 connection, first data indicating at least some of authentication and authorization
7 information;
8 receiving, at the intermediate device from the host, a first message for discovering a
9 logical network address for the host;
10 generating a second message based on the first message and the first data; and
11 sending the second message to a second server that provides the logical network address
12 for the host;
13 wherein an authenticator process performs said step of receiving the first data; a relay
14 agent process for the second server performs said steps of receiving the first
15 message and sending the second message; the relay agent process is separate from
16 the authenticator process; and generating the second message further comprises
17 sending a third message, from the authenticator process to the relay agent process,
18 based on the first data.

1 2. (canceled)

1 3. (currently amended) A method as recited in Claim 1, wherein:
2 ~~an authenticator process performs said step of receiving the first data;~~
3 ~~a relay agent process for the second server performs said steps of receiving the first~~
4 ~~message and sending the second message;~~
5 ~~the relay agent process is separate from the authenticator process; and~~
6 ~~said step of generating the second message further comprises the steps of:~~
7 ~~storing second data based on the first data by the authenticator process; and~~
8 ~~retrieving the second data by the relay agent process in response to said step of~~
9 ~~receiving the first message.~~

- 1 4. (original) A method as recited in Claim 1, wherein the first server is an
2 authentication, authorization and accounting server.
- 1 5. (original) A method as recited in Claim 4, wherein the first server is a RADIUS
2 protocol server.
- 1 6. (original) A method as recited in Claim 1, wherein the physical connection
2 comprises an Ethernet interface card on the intermediate device.
- 1 7. (original) A method as recited in Claim 1, wherein the physical connection
2 comprises a wireless Ethernet encryption key and time slot.
- 1 8. (original) A method as recited in Claim 1, wherein the request for authentication is
2 based on an Institute of Electrical and Electronics Engineers (IEEE) 802.1x standard.
- 1 9. (original) A method as recited in Claim 1, wherein the second message is based on a
2 dynamic host configuration protocol (DHCP).
- 1 10. (original) A method as recited in Claim 1, wherein:
2 the first data includes user class data indicating a particular group of one or more
3 authorized users of the host; and
4 said step of generating the second message is further based on the user class data.
- 1 11. (original) A method as recited in Claim 1, wherein:
2 the first data includes credential data indicating authentication is performed by the first
3 server; and
4 said step of generating the second message is further based on the credential data.
- 1 12.-24. (canceled)
- 1 25. (currently amended) A computer-readable medium carrying one or more sequences of
2 instructions for assigning a network address to a host based on authentication for a physical
3 connection between the host and an intermediate device, which instructions, when executed by
4 one or more processors, cause the one or more processors to carry out the steps of:

5 receiving, at the intermediate device from the host, a message for discovering a logical
6 network address for the host;
7 retrieving, from a persistent store at the intermediate device, first data indicating at least
8 some of authentication and authorization information received from a first server
9 that provides authentication and authorization in response to a request for
10 authentication of the physical connection;
11 generating a second message based on the first message and the first data; and
12 sending the second message to a second server that provides the logical network address
13 for the host;
14 wherein an authenticator process performs said step of receiving the first data; a relay
15 agent process for the second server performs said steps of receiving the first
16 message and sending the second message; the relay agent process is separate from
17 the authenticator process; and generating the second message further comprises
18 sending a third message, from the authenticator process to the relay agent process,
19 based on the first data.

1 26. (currently amended) An apparatus for assigning a network address to a host based on
2 authentication for a physical connection between the host and an intermediate device,
3 comprising:
4 means for receiving, from a first server that provides authentication and authorization, in
5 response to a request for authentication for the physical connection, first data
6 indicating at least some of authentication and authorization information;
7 means for receiving, from the host, a first message for discovering a logical network
8 address for the host;
9 means for generating a second message based on the first message and the first data; and
10 means for sending the second message to a second server that provides the logical
11 network address for the host;
12 wherein an authenticator process performs said step of receiving the first data; a relay
13 agent process for the second server performs said steps of receiving the first
14 message and sending the second message; the relay agent process is separate from
15 the authenticator process; and generating the second message further comprises
16 sending a third message, from the authenticator process to the relay agent process,
17 based on the first data.

1 27. (currently amended) An apparatus for assigning a network address to a host based on
2 authentication for a physical connection between the host and an intermediate device,
3 comprising:

4 a network interface that is coupled to a data network for receiving one or more packet
5 flows therefrom;

6 a physical connection that is coupled to the host;

7 a processor;

8 one or more stored sequences of instructions which, when executed by the processor,
9 cause the processor to carry out the steps of:

10 receiving, through the network interface from a first server that provides

11 authentication and authorization, in response to a request for

12 authentication for the physical connection, first data indicating at least

13 some of authentication and authorization information;

14 receiving, through the physical connection from the host, a first message for

15 discovering a logical network address for the host;

16 generating a second message based on the first message and the first data; and

17 sending through the network interface the second message to a second server that

18 provides the logical network address for the host;

19 wherein an authenticator process performs said step of receiving the first data; a relay

20 agent process for the second server performs said steps of receiving the first

21 message and sending the second message; the relay agent process is separate from

22 the authenticator process; and generating the second message further comprises

23 sending a third message, from the authenticator process to the relay agent process,

24 based on the first data.